

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application of:

Schneider et al.

Application No.: 10/701,233

Filed: November 3, 2003

For: Method for a Patterned Etch Using a
Holographic Mask

Examiner: TBA

Art Unit: 3729

Mailstop Amendment
Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450RESPONSE TO ELECTION/RESTRICTION REQUIREMENT

Dear Sir:

In response to the Election/Restriction Requirement set forth in the Office
Action dated April 27, 2006, Applicant elects to prosecute Group I, Claims 1-14,
without traverse.

CERTIFICATE OF MAILING OR TRANSMISSION

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage, via first class mail in an envelope addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450, or facsimile transmitted to the U.S. Patent and Trademark Office on the date shown below:

Name (Print/Type) Esther L. Campbell

Signature _____

Date _____

Electronically Filed: May 14, 2006

IN THE CLAIMS

Please withdraw claims 15-17.

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Original) A method of producing an electrode for a capacitor from a foil, comprising:
 - (a) coating said foil surface with photoresist;
 - (b) applying a holographic image to said photoresist;
 - (c) removing a portion of said photoresist to expose a portion of said foil and create a pattern of photoresist on said foil; and
 - (d) etching said foil.
2. (Original) The method of claim 1, wherein said applying step further comprises:
applying a holographic image to create a motheye pattern of photoresist.
3. (Original) The method of claim 1, wherein said foil comprises aluminum foil.
4. (Original) The method of claim 3, further comprising:
polishing said foil before said coating step.
5. (Original) The method of claim 4, wherein said coating step further comprises:
coating said foil surface with an anti-reflective coating and a photoresist.
6. (Original) The method of claim 5, wherein said coating step comprises:
spin coating or blade coating said anti-reflective coating and said photoresist on said foil.

7. (Original) The method of claim 6, wherein said removing step comprises: removing said photoresist using a mineral acid, organic solvent or ion-etch.
8. (Original) The method of claim 7, wherein said etching step further comprises:
- (a) placing said foil in an electrochemical bath comprising an anode portion comprising anode electrolyte and a cathode portion;
 - (b) connecting said foil to a charge source in the anode portion of said bath;
 - (c) applying a charge to said foil;
 - (d) monitoring the charge on said foil; and
 - (e) stopping said etching step when said charge reaches a predetermined level.
9. (Original) The method of claim 8, wherein said placing step comprises: placing said foil in an electrolyte heated to about 75-90°C and comprising sodium chloride in the range from about 1-3% and sodium perchlorate or sodium persulfate in the range from about 2-5%.
10. (Original) The method of claim 1, further comprising the steps, after said removing step, of:
- (a) applying an oxide or metallic layer onto the exposed portion of said foil;
 - (b) removing remaining photoresist to expose a portion of the foil and create a pattern of oxide or metallic layer; and
 - (c) etching said exposed foil.
11. (Original) The method of claim 10, wherein said step of applying said oxide or metallic layer comprises:
- applying a layer of aluminum oxide, gold or platinum.

12. (Original) The method of claim 1, further comprising a step, after said etching step, of:
widening said foil.
13. (Original) The method of claim 1 further comprising a step, after said etching step, of:
forming said foil.
14. (Original) The method of claim 13, wherein said forming step further comprises:
 - (a) forming said foil in a solution comprising citric acid;
 - (b) heating said solution to a temperature in the range of about 80-100°C;
 - (c) forming said foil at a current density in the range of about 10-20 mA/cm²; and
 - (d) forming said foil at a voltage in the range of about 300-600 Volts.
15. (Withdrawn) A metal foil made by the method of claim 1.
16. (Withdrawn) A capacitor comprising a metal foil made by the method of claim 1.
17. (Withdrawn) An implantable cardioverter defibrillator comprising a capacitor that comprises a metal foil made by the method of claim 1.

REMARKS/ARGUMENTS

The Examiner subjected claims 1-17 to a restriction requirement. The Examiner stated that the application contains claims directed to the following patentably distinct inventions:

- I. Claims 1-14, drawn to method of producing an electrode for capacitor, classified in class 29, subclass 25.35; and
- II. Claims 15-17, drawn to a product, classified in class 361, subclass 509.

The Examiner required Applicant under 35 U.S.C. §121 to restrict the application to one of the above inventions.

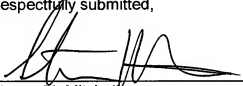
Applicant has elected Invention I for prosecution on the merits, without traverse and has accordingly withdrawn claims 15-17.

Applicant believes that the above remarks are fully responsive to the Office Action dated April 27, 2006. If the Examiner believes a telephone conference would expedite or assist in the allowance of the present application, the Examiner is invited to call Steven M. Mitchell at (408) 522-6101.

Pursuant to 37 C.F.R. 1.136(a)(3), Applicant hereby requests and authorizes the U.S. Patent and Trademark Office to (1) treat any concurrent or future reply that requires a petition for extension of time as incorporating a petition for extension of time for the appropriate length of time and (2) charge all required fees, including extension of time fees and fees under 37 C.F.R. 1.16 and 1.17, to Deposit Account No. 22-0265.

Respectfully submitted,

Dated: 5/16/06


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